



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,057	01/12/2004	John M. Brookfield	D/A3312	1720

EXAMINER	
FIDLER, SHELBY LEE	

ART UNIT	PAPER NUMBER
2861	

MAIL DATE	DELIVERY MODE
05/24/2007	PAPER

7590 05/24/2007
Patent Documentation Center
Xerox Corporation
Xerox Square 20th Floor
100 Clinton Ave. S.
Rochester, NY 14644

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/756,057	BROOKFIELD ET AL.	
	Examiner	Art Unit	
	Shelby Fidler	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-7,9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Responsive Office Action

This Office Action is responsive to amendments/remarks filed 3/15/2007.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 5-7 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 8, and 9 of copending Application No. 10/756587. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Regarding claim 1: Application No. 10/756587 discloses all claimed limitations except that the vent structures are for damping pressure perturbations in the finger manifolds.

However, functional recitations do not patentably distinguish an apparatus over the apparatus

Art Unit: 2861

disclosed in claim 1 of Application No. 10/756587, since the apparatus is capable of performing such a function.

Regarding claim 5-7: Application No. 10/756587 discloses all claimed limitations in claims 5, 8, and 9, respectively.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, because the claim recites a single means claim i.e., where a means recitation does not appear in combination with another recited element of means, therefore is subject to an undue breadth rejection. See MPEP § 2164.08(a).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Usui et al. (EP 0695638 A2).

Regarding claim 1:

Usui et al. disclose a drop emitting device comprising:

Art Unit: 2861

an array of finger manifolds (e.g. Fig. 3), each finger manifold (arms of reservoir chamber 25) having longitudinally separated first and second ends (Fig. 3), wherein the first end comprises a fluid receiving end (page 4, lines 38-39);

a plurality of drop generators (drop generators are represented by pressure producing chambers 51) fluidically coupled to one of the finger manifolds (Fig. 12A); and

a respective vent structure (dummy pressure producing chamber 71) fluidically coupled to each of the finger manifolds (Figs. 12B and 13) for damping pressure perturbations in such finger manifold (page 9, lines 33-37 and page 2, lines 36-46),

wherein the vent structure comprises a plurality of apertures (nozzles 79) disposed at the second end of each of the finger manifolds (Fig. 13).

Regarding claim 5:

Usui et al. also disclose that each aperture has a diameter of at most about 30-50 microns (page 5, lines 2-3).

Regarding claim 7:

Usui et al. also disclose that the finger manifolds, drop generators, and vent structures are formed in a laminar stack of metal plates (page 5, lines 24-27 and Fig. 3).

Regarding claim 9:

Usui et al. also disclose a drop emitting device comprising:

an array of finger manifolds (e.g. Fig. 3), each finger manifold (arms of reservoir chamber 25) having longitudinally separated first and second ends (Fig. 3), wherein the first end comprises a fluid receiving end (page 4, lines 38-39);

a plurality of drop generators (drop generators are represented by pressure producing chambers 51) fluidically coupled to each of one of the finger manifolds (Fig. 12A); and

Art Unit: 2861

a means (dummy pressure producing chamber 71) for damping pressure perturbations (page 9, lines 33-37 and page 2, lines 36-46) in each finger manifold (Fig. 13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usui et al. (EP 0695638 A2) as modified by Lidke et al. (US 5805183).

Regarding claim 6:

Usui et al. disclose all claimed limitations except that the finger manifolds receive melted solid ink.

However, Lidke et al. teach that ink jet printer systems can use many different types of ink, such as melted solid ink (col. 1, lines 50-57).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to receive melted solid ink into the finger manifolds of the invention disclosed by Usui et al. The motivation for doing so, as taught by Lidke et al., is to use ink which contains little or no solvent, which provides a cleaner, higher quality picture (col. 1, lines 54-57).

Response to Arguments

Art Unit: 2861

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Please see the above rejection, which is based on the disclosure provided by Usui et al., who teach the claimed invention.

Art Unit: 2861

Communication with the USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelby Fidler whose telephone number is (571) 272-8455. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shelby L. Fidler 5/11/07

Shelby Fidler
Patent Examiner
AU 2861



MATTHEW LUU
SUPERVISORY PATENT EXAMINER